

CLAIMS

What is claimed is:

1. A system comprising:
 - a database;
 - a message server having no persistent state; and
 - a plurality of instances of an application server implementing a Java application model coupled in a star topology with the message server at a center of the star topology, the plurality of instances sharing the database.
2. The system of Claim 1 wherein each instance comprises:
 - a dispatcher node; and
 - a plurality of server nodes.
3. The system of Claim 2 wherein each server node comprises:
 - a java 2 enterprise edition (J2EE) engine.
4. The system of Claim 1 further comprising:
 - a central lock server to provide cluster wide locks to the plurality of instances.
5. The system of Claim 1 wherein the message server comprises:
 - a first data structure to store a list of connected clients; and
 - a second data structure and a list of services provided in the system.
6. A computer readable storage media containing executable computer program instructions which when executed cause a digital processing system to perform a method comprising:
 - starting a central services node to provide at least one of a locking service and a messaging service;
 - starting a plurality of application server instances; and
 - organizing the application server instances into a cluster having star topology with the central services node at a center of the star topology.

7. The computer readable storage media of Claim 6 containing executable computer program instructions which when executed cause a digital processing system to perform the method further comprising:
 - sharing a database among the plurality of application server instances.
8. The computer readable storage media of 6 containing executable computer program instructions which when executed cause a digital processing system to perform the method wherein starting a plurality of application server instances comprises:
 - starting, for each application server instance of the plurality, a dispatcher node and a plurality of server nodes.
9. The computer readable storage media of Claim 6 containing executable computer program instructions which when executed cause a digital processing system to perform the method further comprising:
 - starting a message server having no persistent state.
10. The computer readable storage media of Claim 6 containing executable computer program instructions which when executed cause a digital processing system to perform the method further comprising:
 - registering each application server with the messaging server.
11. The computer readable storage media of Claim 6 containing executable computer program instructions which when executed cause a digital processing system to perform the method further comprising:
 - conducting inter instance communication through the messaging service.
12. The computer readable storage media of Claim 9 containing executable computer program instructions which when executed cause a digital processing system to perform the method further comprising:
 - restarting the message server without state recovery responsive to a system failure.

13. The computer readable storage media of Claim 10 containing executable computer program instructions which when executed cause a digital processing system to perform the method further comprising:
 - notifying all registered instances from the message server when an additional instance joins the cluster.
14. A system comprising:
 - means for organizing a plurality of application servers instances into a cluster having a star topology with a central services node at a center of the star topology;
 - means for sharing a storage resource across the cluster; and
 - means for performing centralized inter instances communication.
15. The system of Claim 14 further comprising:
 - means for centralized locking of a resource within the cluster.
16. The system of Claim 14 wherein the means for performing comprises:
 - a message server having no persistent state.
17. The system of Claim 14 wherein the means for performing comprises:
 - means for registering instances; and
 - means for recording services provided in the cluster.
18. A method comprising:
 - starting a central services node to provide at least one of a locking service and a messaging service;
 - starting a plurality of application server instances; and
 - organizing the application server instances into a cluster having star topology with the central services node at a center of the star topology.
19. The method of Claim 18 further comprising:
 - sharing a database among the plurality of application server instances.
20. The method of Claim 18 wherein starting a plurality of application server instances comprises:
 - starting, for each instance of the plurality, a dispatcher node and a plurality of server nodes.

21. The method of Claim 18 wherein starting a central service node comprises:
 - starting a message server having no persistent state.
22. The method of Claim 18 wherein organizing comprises:
 - registering each application server with the messaging server.
23. The method of Claim 18 further comprising:
 - conducting inter instance communication through the messaging service.
24. The method of Claim 21 further comprising:
 - restarting the message server without state recovery responsive to a system failure.
25. The method of Claim 22 wherein organizing further comprises:
 - notifying all registered instances from the message server when an additional instance joins the cluster.